

Designing for Safety

Working to Protect our Employees

Any time someone stands on a highway, alongside vehicles traveling at 55 miles per hour or more, they risk injury or death.

Caltrans is designing and building highways with safety features to protect our employees from the hazards they face every day they go to work. Since an employee's risk increases with time exposed to traffic without protection, we are designing highways with protective features or with features that require less maintenance by our workers. Sometimes this means we are widening freeway shoulders, upgrading guardrails to concrete barriers, improving lighting, or moving employee parking, signs, or electrical boxes farther from traffic.

Providing safe worker access and reducing the need for recurrent activities reduces the amount of time employees are exposed to traffic. These improvements reduce worker exposure and make the highways more sustainable by eliminating or minimizing needed maintenance activities and costs.

Caltrans measures the number of locations where we make worker safety improvements through our State Highway Operations and Protection Plan (SHOPP) Roadside Safety Improvement Program. The program provides off-pavement access areas that can be used by highway workers for landscape and electrical maintenance, litter pickup crews, the motoring public for emergencies, and the California Highway Patrol for traffic control. Our goal is to have zero work-zone-related fatalities and to reduce work-related injuries.

Although we routinely address safety needs on many highway improvement projects as a standard business practice, Caltrans is increasing its focus on reducing worker exposure risk through a dedicated program to address worker exposure. Over the three fiscal years spanning 2013–14 through 2015–16, we will be improving worker safety at more than 1,600 locations. Caltrans district staff determine where safety improvements are needed based on highway worker proximity to traffic or repeated errant vehicles in a certain location where employees work. Improvements will include creating safe access to work areas with gates, vehicle trails, or vehicle pullouts. We are also relocating signs, and when possible, either moving highway elements such as signals and irrigation system components closer together or to protected locations, and we are increasing the pavement areas near highway exits so our workers spend less time exposed to traffic during weed-control work. For our chain control areas, we are improving signage and lighting and increasing the pavement areas for our workers. We are upgrading our barriers from metal to concrete where appropriate and including barrier end treatments that crumple to reduce motorist injury upon impact. These upgrades will be measured by location in varying units, such as square feet or linear feet, to count as one location. In addition,

Caltrans Safety Locations

(Fiscal years 2010–2015)

Fiscal Year	Number of Locations with Safety Improvements
2010–11	33*
2011–12	31*
2012–13	32*
2013–14	142
2014–15	893 (planned)
2015–16	574 (planned)
Total Improvements	1,609

*Before funds were increased for the Roadside Safety Improvement Program.
(Note: The program was previously funded at \$2.9 million, but it was increased to \$90 million last year.)
Source: Division of Design



we are including these and other safety features when we design new projects.

The Roadside Safety Improvements Program is slated to receive an average of \$90 million a year through the next 10-year SHOPP cycle. This will help us meet our goals by continuing to fund the protection of highway workers by placing barriers between the workers and traffic, moving highway features farther from traffic, and by providing safe access to work sites.

New Safety Campaign Features Caltrans Kids

Highway construction is one of the most dangerous jobs in the nation. Since the 1920s, 183 Caltrans employees have been killed on the job—and the risk of death is seven times higher for highway workers than for workers in other industries, according to the latest data from the California Department of Industrial Relations. On average, 1,000 Caltrans vehicles are struck each year—more than three each day.

In June of this year, and in partnership with the California Highway Patrol and the California Office of Traffic Safety, we began asking drivers to “Be Work Zone Alert” and help save lives on California’s roads. The new campaign features public service announcements and nearly 60 billboards across

California where the children of highway workers remind drivers to stay alert in California work zones. Through an in-house casting call to our field maintenance employees, we are able to feature five families. The campaign is funded with highway maintenance funds and a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

This public awareness campaign reminds everyone that highway workers have families and loved ones who are counting on motorists to “[Be Work Zone Alert](#)” and help save lives. The children of our workers are proud of their parents and are asking all drivers to help keep workers safe by staying alert in highway work zones.

Past public awareness campaigns, such as “[Click It or Ticket](#)” and “[Slow for the Cone Zone](#),” have helped improve public safety by reducing collisions, injuries, and fatalities on California’s highways. In 2010, highway work zone injuries were reduced by 33 percent from 2007 levels. Nevertheless, work zone collisions still burdened the state with approximately \$185 million in economic costs as well as the tragic loss of human life.

Safety is our No. 1 priority, and we will continue to do all that we can to protect our workers—all of them—so that at the end of their workdays they can go home to the people who love them.

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